

AUTOMATIC CHEMICAL AGENT ALARM (ACADA), M22



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The fielding of the Automatic Chemical Agent Detection Alarm (ACADA) will fulfill the Army's need to replace the currently fielded M8A1 detector. As an automatic point detector the ACADA will also augment the Improved Chemical Agent Monitor (ICAM) as a survey instrument. The ACADA will be used across the spectrum of Army, Navy, Air Force, and Marine Units.

The ACADA is an automatic, advanced point-sampling chemical warfare agent detection system. The ACADA is also man-portable, able to operate unattended after system start-up, and provides an audio and visual alarm and a communication interface to support battlefield automation systems.

While serving as the primary area-warning device in a defensive posture, the ACADA will also have an expanded role over the M8A1. The system offers improved sensitivity, response times, and interferent rejection as well as concurrent nerve and blister

detection capability. The system functions as an air monitoring device under all environmental conditions, within mobile and stationary, standard wheeled and tracked tactical vehicles and collective protection shelters. The detector will sound an alarm when the quantity of chemical agent exceeds defined limits, and shall display information identifying the detected agent by class.

Development

The ACADA was selected from several non-developmental items (NDI), candidate items through a competitive evaluation program. The ACADA was developed and is being produced by Graseby Ionics, LTD. in the United Kingdom. Graseby was also the original developer of the Chemical Agent Monitor (CAM).

System Characteristics

The ACADA system consists of a vapor agent detector, battery box assembly, M42 remote alarm unit, transit case and on-board spares. Auxiliary equipment includes the power supply, and vehicle mount. The detector unit is comprised of the agent sensor module (which utilizes ion mobility technology for detection), electrical interfaces, adjustable audio alarm, and display. The detector with battery box attached and batteries in place weighs less than/equal to 0.5 cubic feet and less than/equal to 15 pounds. The system can operate on power supply, vehicle power, or standard Army lithium batteries.

Key features

- Requires minimum training for operation, imposing no additional burden to the troops.
- Provides monitoring for collective protection enclosures.
- Will interface with automated battlefield communication systems such as the Multipurpose Integrated Chemical Agent Alarm (MICAD).
- Vehicle mounts will enable mobile detection while integrated with the on-board communications system to provide advance warning to troops.

Fielding/Training

The program manager, Nuclear, Biological and Chemical Defense Systems (NBCDS), fielded 150 ACADAs to the US Army Chemical School (USACMLS) in late July 1998. The USACMLS kept 134 ACADAs and gave 16 to the U.S. Army Military Police School (USAMPS). Instructor and Key Personnel (IKP) training was conducted for initial receiving units during the week of 27 July 1998. Classroom training on the ACADA will begin at the USACMLS in January 1999.

Pre-Programmed Product Improvement (P3I)

A hand-held probe is being developed to attach to the ACADA inlet which will allow the ACADA to be used as a surface sampler/survey instrument. This probe should be available during the 1QFY00.

Conclusion

The fielding of the ACADA will help to meet the Army's Force XXI plan to man the battlefield with the latest detection equipment available today. The ACADA will allow the U.S. Army to better meet the challenges of the 21st Century and beyond.

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New Web Page

The doctrine division of the USACMLS now has a web page that is up and functional. It provides information on the doctrine division's mission, organization, and the status of all proponent publications from Army to Multi-service and Joint. There is an additional page from which doctrinal items can be downloaded. These items provide a glimpse into minor changes currently under consideration. The web page also discusses the Combat Training Center (CTC) Review program that the doctrine division manages. Access the page at the following link:

<http://www.mcclellan.army.mil/usacmls/doctrine/docindex.htm>

